Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.   (Previously Presented) A computer program product, tangibly embodied in a machine-readable storage device, the computer program product comprising instructions operable to cause data processing apparatus to perform operations comprising:

   providing a server-side framework to an application, the server-side framework being external to the application, the framework supporting predefined data types, each data type having a predefined rule;

   receiving from an application a request for an object, the request indicating one of the multiple predefined data types, the object storing a default value of the indicated data type, the default value being stored in the object in a transfer format and in a process format, the process format being different from the transfer format;

   creating the object in response to the request;

   generating a markup language page that includes the default value in the transfer format read from the object;

   sending the markup language page to a browser on a client;

   receiving a user-supplied value in the transfer format from the browser;

   replacing in the object the default value in the transfer format with the user-supplied value in the transfer format, the object automatically converting the user-supplied value from the transfer format to the process format, the object storing the user-supplied value in the process format, the object automatically checking the compliance of the user-supplied value in the process format with the predefined rule; and

   if the user-supplied value in the process format complies with the predefined rule, forwarding the user-supplied value in the process format from the object to the application and

otherwise automatically resending the markup language page to the browser with the user-supplied value in the transfer format.

2. (Original) The product of claim 1, wherein the transfer format is a string format.

3. (Original) The product of claim 1, wherein the predefined rule is internal to the object.

4. (Original) The product of claim 1, wherein the predefined rule is external to the object.

5. (Original) The product of claim 1, wherein the operations further comprise storing state information in permanent memory and restoring the object by using the state information.

6. (Original) The product of claim 5, wherein restoring is delayed until transferring.

7. (Original) The product of claim 5, wherein storing state information in permanent memory is performed by storing in hidden input fields in the page.

8. (Previously Presented) The product of claim 1, wherein resending the markup language page to the client includes:

    identifying a portion of the markup language page that has changed since the markup language page was previously sent; and

    resending only the portion of the markup language page that has changed.

9. (Previously Presented) The product of claim 1, wherein the object is provided by the software framework running on a server.

10. (Original) The product of claim 1, wherein the instructions do not need to be in a particular programming language.

11. (Original) The product of claim 1, wherein the operations do not require any particular flow logic.

12. (Original) The product of claim 1, wherein the operations do not assume a particular error handling scheme.

13. (Previously Presented) A method, comprising:

provideing a server-side framework to an application, the server-side framework being external to the application, the framework supporting predefined data types, each data type having a predefined rule;

receiving from an application a request for an object, the request indicating one of the multiple predefined data types, the object storing a default value of the indicated data type, the default value being stored in the object in a transfer format and in a process format, the process format being different from the transfer format;

creating the object in response to the request;

generating a markup language page that includes the default value in the transfer format read from the object;

sending the markup language page to a browser on a client;

receiving a user-supplied value in the transfer format from the browser;

replacing in the object the default value in the transfer format with the user-supplied value in the transfer format, the object automatically converting the user-supplied value from the transfer format to the process format, the object automatically checking the compliance of the user-supplied value in the process format with the predefined rule; and

if the user-supplied value in the process format complies with the predefined rule, forwarding the user-supplied value in the process format from the object to the application and otherwise automatically resending the markup language page to the browser with the user-supplied value in the transfer format.

14. (Previously Presented) The method of claim 13, further comprising maintaining on the client a copy of the markup language page that was previously sent and wherein resending the markup language page to the client includes:

identifying a portion of the markup language page that has changed since the markup

language page was previously sent; and

      resending only the portion of the markup language page that has changed.

15. (Previously Presented) The method of claim 13, wherein the object is provided by the software framework running on a server; the software framework being external to the application.

16. (Previously Presented) Apparatus, comprising:

      means for providing a server-side framework to an application, the server-side framework being external to the application, the framework supporting predefined data types, each data type having a predefined rule;

      means for receiving from an application a request for an object, the request indicating one of the multiple predefined data types, the object storing a default value of the indicated data type, the default value being stored in the object in a transfer format and in a process format, the process format being different from the transfer format;

      means for creating the object in response to the request;

      means for generating a markup language page that includes the default value in the transfer format read from the object;

      means for sending the markup language page to a browser on a client;

      means for receiving a user-supplied value in the transfer format from the browser;

      means for replacing in the object the default value in the transfer format with the user-supplied value in the transfer format, the object automatically converting the user-supplied value from the transfer format to the process format, the object automatically checking the compliance of the user-supplied value in the process format with the predefined rule; and

      means for forwarding the user-supplied value in the process format from the object to the application, if the user-supplied value in the process format complies with the predefined rule, and otherwise automatically resending the markup language page to the browser with the user-supplied value in the transfer format.

17. (Previously Presented) The apparatus of claim 16, further comprising means for maintaining on the client a copy of the markup language page that was previously sent and wherein the means for resending the markup language page to the client includes:

      means for identifying a portion of the markup language page that has changed since the markup language page was previously sent; and

      means for resending only the portion of the markup language page that has changed.

18. (Previously Presented) The apparatus of claim 16, wherein the object is provided by the software framework running on a server.

19. (Previously Presented) The computer program product of claim 1, wherein the default value is a null value.

20. (Previously Presented) The method of claim 13, wherein the default value is a null value.